PHILOSOPHICAL MAGAZINE B, 1996, VOL. 74, NO. 6, 777–779

SUBJECT INDEX

Vol. 74

	PAGE
Amorphous As_2Se_3	71
Amorphous C : H structure	369
Amorphous $(Se_{70}Te_{30})_{99.9}Mn_{0.1}$	317
Amorphous Si multilayers	331
Amorphous Si–V devices	37
Antiferromagnet incipient	457, 529
a-C : H luminescence	369
a-SiC : H films	199
a-Si : H by homogeneous CVD	269
a-Si : H defect formation	309
a-Si : H devices	407
a-Si–N : H by CVD	155
As_xSe_{1-x} glasses	667
Au–15 at.% Fe magnetism	211
$(Ba,Sr)TiO_3$ as a capacitor	293
$BaTiO_3$ phase transitions	25
Bloch oscillations from dc fields	105
Bose glass vortex phase	647
Bulk and surface properties of a-SiC : H	199
c-Axis transport, cuprates	497
Carbon tubes	51
Carrier induced defects in a-Si : H	309
$CeRh_3B_2$ magnetism	259
Charge mobility, organic conductors	81,93
Composition and structure of a-Si–N : H	155
Cr alloys	349
Cuprate normal-state gap	611
Cuprate spin-gap puzzle	523
Cuprate superconductors	469, 497, 681
Cuprates, underdoped	563
Debye–Waller factor of Cu	1
'Demon'-like excitations	301
d-Wave pairing	607
Diamond IIa luminescence	359
Diffuse scattering theory	733
Distorted crystal modelling	733
Domain-wall pinning, magnetic	275
Domains in $BaTiO_3$	25
Electron spins and NMR	545
Electronic properties, Mn doping	317
Electronic structure quasicrystals	387
Entropy of pressure transformation	243
Excitations, low energy, antiferromagnets	457
Fermi liquids, two-dimensional	477

Fermi surface evolution in cuprates 563
Field theory 435
Finite-temperature, atomic displacements 13
Frequency-resolved photoconductivity 71

Glass transformation by specific heat 667
Green's functions for anharmonicity 1, 13

High pressure on diamond 359
High-temperature superconductivity 497, 509, 607, 611, 681
Hopping conductivity 235
Hubbard ladder 485

Josephson experiments on cuprates 509

Kondo versus RKKY 447

Lead cuprate glass 235
Lie algebras 435
Local Fermi liquids 633
Localization in tight-binding lattices 105
Low density Fermi liquids 477

Magnetic ordering observed with muons 259
Magnetoresistivity 641
Magnetotransport in Fermi liquids 529
Many-body theory 435, 579, 633
Metal–non-metal transition in Si–V 37
Metal particles interacting with light 301
Mixed state in superconductors 647, 655
Molecular dynamics NiAl 169
Muon spin relaxation for magnetism 259

NbTi superconductivity 655
Neutron spin echo AuFe alloy 211
Ni and Zn on Cu–O planes 681
NiAl thermal vibrations 169
Ni–Ti transformation 243
NMR on cuprates 523, 545, 573
Non-Fermi liquid model 587

Organic photoconductors, PVK/TNF 81,93
Oxide-catalytic carbonization 51
Oxide materials for capacitors 293

Path integral approach 715
Photoconductivity of a-Si layers 331
Pines, David 427, 431
P–i–n and Schottky a-Si characteristics 407
Proteins 579

Quasicrystals, two-dimensional 387

Raman scattering on a-Si 269

Si_3N_4/Si/n-GaAs interface properties 219
Silicon interlayer in M–I–S structure 219
Small polaron hopping 139

Spheres packing 177
Spin pseudogap 469
$SrTiO_3$, glassy semiconductor, doping 139
Supercriticality in superconductors 655
Surface morphology 751

Twinned YBCO 647
Two-chain Hubbard ladder 485
Two-dimensional quantum liquids 587
Two-impurity model 447

UCu_2Ge_2 magnetism 275
Ultrasound on paramagnetic crystals 349

Voroni tesselation 177

YBCO 90 K plateau 573
YNi_2B_2C superconductivity 641

PHILOSOPHICAL MAGAZINE B, 1996, VOL. 74, NO. 6, 781–785

INDEX OF AUTHORS (WITH TITLES OF PAPERS)

Vol. 74

PAGE

Abd-Elrahman, M. I., *see* Fujita, T.
Alberts, H. L., *see* Cankurtaran, M.
Amaratunga, G. A. J., *see* Silva, S. R. P.
Andre, B., *see* Marc, N.

Barzykin, V.: Spin pseudo-gap and $z = 1$ pseudo-scaling in cuprate superconductors 469
Bedell, K. S., Forty-five years of many-body theory 427
Bedell, K. S., and Engelbrecht, J.: Local Fermi liquids: where have all the instabilities gone? 633
Beeby, J. L., *see* Yildiz, A. K.
Bennett, B. L., *see* Cooke, D. W.
Beyermann, W. P., *see* Lacerda, A.
Bhatia, K. L., *see* Kundu, R. S.
Bhatia, K. L., Singh, P., Kishore, N., Kanjilal, D., and Mehra, N. C.: Surface morphology and optical properties of MeV-energy heavy-ion irradiated crystalline Si and crystalline Ge: possibility of formation of porous material . . 751
Blackstead, H. A., and Dow, J. D.: Ni and Zn doping of Cu sites in superconducting $Nd_{2-z}Ce_zCuO_4$, $La_{2-\beta}Sr_\beta CuO_4$, $Bi_2Sr_2CaCu_2O_8$, $Bi_{1\cdot8}Pb_{0\cdot2}Sr_2Ca_2Cu_3O_{10}$, $YBa_2Cu_3O_7$, $La_{0\cdot6}Ca_{0\cdot4}Ba_{1\cdot35}La_{0\cdot65}Cu_3O_x$ and $YBa_2Cu_4O_8$ 681
Boekema, C., *see* Cooke, D. W.
Botchkarev, A. E., *see* Park, D.-G.
Bube, R. H., *see* Redfield, D.

Canfield, P. C., *see* Lacerda, A.
Cankurtaran, M., Saunders, G. A., Wang, Q., and Alberts, H. L.: Ultrasonic study of the elastic and nonlinear acoustic properties of the paramagnetic Cr–5 at.% V single-crystal alloy 349
Cao, W., *see* Mulvihill, M. L.
Chakraborty, S., *see* Sadhukhan, M.
Chandrasekhar Rao, T. V., Raj, P., Yusuf, Sk. M., Rao, L. M., Sathyamoorthy, A., and Sahni, V. C.: Magnetism in UCu_2Ge_2: the role of intrinsic domain wall pinning 275
Chaudhuri, B. K., *see* Sadhukhan, M.
Chen, Z., *see* Park, D.-G.
Chu, V., *see* Conde, J. P.
Chubukov, A. V., Morr, D. K., and Shakhnovich, K. A.: Fermi surface evolution in underdoped cuprates 563
Coffey, D., *see* Kim, J.
Conde, J. P., Silva, M., Chu, V., Gleskova, H., Vasanth, K., Wagner, S., Shen, D. S., Popovic, P., Grebner, S., and Schwarz, R.: In-plane photoconductivity in amorphous silicon doping multilayers 331
Cooke, D. W., Bennett, B. L., Lawson, A. C., Huber, J. G., Oostens, J., Boekema, C., Flint, J. A., and Lichti, R. L.: Spontaneous magnetic ordering in $CeRh_3B_2$ observed by zero-field muon-spin relaxation 259
Cooper, B. R., *see* Mei, J.
Corey, R. L., *see* Slichter, C. P.
Cotton, J. D., *see* Mei, J.

0141–8637/96 $12 · 00 © 1996 Taylor & Francis Ltd.

Curro, N. J., *see* Slichter, C. P.

Deisz, J. J., *see* Hess, D. W.
Demichelis, F., Giorgis, F., and Pirri, C. F.: Compositional and structural analysis of hydrogenated amorphous silicon–nitrogen alloys prepared by plasma-enhanced chemical vapour deposition 155
DeSoto, S. M., *see* Slichter, C. P.
Dow, J. D., *see* Blackstead, H. A.

Engelbrecht, J., *see* Bedell, K. S.

Flint, J. A., *see* Cooke, D. W.
Foltyn, S. R., *see* Safar, H.
Frauenfelder, H.: Proteins: a challenging many-body problem 579
Fujita, T., Abd-Elrahman, M. I., Takiyama, K., and Oda, T.: New visible luminescence spectra from synthetic type IIa diamond 359
Furukawa, A., *see* Ishizuka, Y.

Geiser, U., *see* Slichter, C. P.
Gell-Mann, M.: Reminiscences 431
Gervois, A., *see* Oger, L.
Ghosh, A., *see* Hazra, S.
Giorgis, F., *see* Demichelis, F.
Gleskova, H., *see* Conde, J. P.
Gor'kov, L. P., and Kim, J. H.: Interplay between the Kondo effect and the Ruderman–Kittel–Kasuga–Yosida interaction in the two-impurity model . . 447
Grebner, S., *see* Conde, J. P.
Gulacsi, M.: Phenomenological theory of two-dimensional quantum liquids . . 587

Hajto, J., *see* Hu, J.
Hammel, P. C., and Scalapino, D. J.: Local microstructure and the cuprate spin gap puzzle 523
Hammel, P. C., *see* Martindale, J. A.
Hazra, S., and Ghosh, A.: Hopping conduction in unconventional lead cuprate glass 235
Hess, D. W., Deisz, J. J., and Serene, J. W.: Low-energy excitations in an incipient antiferromagnet 457
Holthaus, M., and Hone, D. W.: Localization effects in ac-driven tight-binding lattices 105
Hone, D. W., *see* Holthaus, M.
Hu, J., Hajto, J., Snell, A. J., Owen, A. E., and Rose, M. J.: Capacitance anomaly near the metal–non-metal transition in Cr-hydrogenated amorphous Si–V thin-film devices 37
Huber, J. G., *see* Cooke, D. W.

Iida, Y., *see* Ishizuka, Y.
Imai, T., *see* Slichter, C. P.
Ishizuka, Y., Yamaguchi, T., Iida, Y., Nozaki, H., and Furukawa, A.: Predominant influences on the bulk properties and surface morphology in hydrogenated amorphous silicon carbide films 199

Jain, V. K., *see* Kundu, R. S.
Jia, Q. X., *see* Safar, H.
Johari, G. P., McAnanama, J. G., and Sartor, G.: Effect of hydrostatic pressure on the thermoelastic transformation of Ni–Ti alloy and the entropy of transformation 243

Kang, Z. C., *see* Wang, Z. L.
Kanjilal, D., *see* Bhatia, K. L.

Kaplan, R.: Frequency-resolved photoconductivity studies in amorphous As_2Se_3 . 71
Kasap, S. O., *see* Wagner, T.
Katoh, M., *see* Slichter, C. P.
Kim, J., and Coffey, D.: Two-dimensional Fermi liquids at low densities: the single-particle self-energy 477
Kim, J. H., *see* Gor'kov, L. P.
Kim, Y. T., and Lee, C. W.: Improvement in the electrical properties of a (Ba, Sr)TiO_3 capacitor by inserting a TiN layer between polycrystalline Si and Pt bottom electrodes 293
Kini, A. M., *see* Slichter, C. P.
Kishore, N., *see* Bhatia, K. L.
Kishore, N., *see* Kundu, R. S.
Kosuge, K., *see* Slichter, C. P.
Kresin, V. V., and Kresin, V. Z.: Low-frequency 'demon-like' excitations in small metal particles and their interaction with light 301
Kresin, V. Z., *see* Kresin, V. V.
Kundu, R. S., Bhatia, K. L., Kishore, N., and Jain, V. K.: Effect of the addition of the impurity Mn on the electronic properties of the amorphous semiconductor $(Se_{70}Te_{30})_{99.9}Mn_{0.1}$ 317

Lacerda, A., Yatskar, A., Schmiedeshoff, G. M., Beyermann, W. P., and Canfield, P. C.: High-field, low-temperature magnetoresistance of single crystalline heavy fermion $YbNi_2B_2C$ 641
Lawson, A. C., *see* Cooke, D. W.
Lawson, A. C., *see* Mei, J.
Lee, C. W., *see* Kim, Y. T.
Leggett, A. J.: Josephson experiments on the high-temperature superconductors . 509
Lever, R., *see* Marc, N.
Lever, R., *see* Marc, N.
Levin, G. A., *see* Quader, K. F.
Li, Z., *see* Mulvihill, M. L.
Lichti, R. L., *see* Cooke, D. W.
Liu, H., *see* Rubinelli, F. A.

Maley, M. P., *see* Safar, H.
Marc, N., Moisan, J. Y., Andre, B., and Lever, R.: Effect of doping molecules and plasticizer addition on carrier mobility in PVK photoconductors 93
Marc, N., Moisan, J. Y., Wolffer, N., Andre, B., and Lever, R.: Determination of the charge mobility in organic photoconductors by a new method–theoretical study and experimental results 81
Martindale, J. A., and Hammel, P. C.: Oxygen nuclear magnetic resonance on the 90 K plateau of $YBa_2Cu_3O_{7-\delta}$ 573
McAnanama, J. G., *see* Johari, G. P.
Mehra, N. C., *see* Bhatia, K. L.
Mei, J., Cooper, B. R., Lawson, A. C., Roberts, J. A., and Cotton, J. D.: Atom-specific thermal vibration amplitudes in stoichiometric NiAl: agreement of neutron diffraction and *ab-initio*-based molecular dynamics 169
Modak, D. K., *see* Sadhukhan, M.
Mohammad, S. N., *see* Park, D.-G.
Moisan, J. Y., *see* Marc, N.
Morkoç, H., *see* Park, D.-G.
Morr, D. K., *see* Chubukov, A. V.
Mulvihill, M. L., Uchino, K., Li, Z., and Cao, W.: *In-situ* observation of the domain configurations during the phase transitions in barium titanate 25

Noack, R. M., Scalapino, D. J., and White, S. R.: Ground-state properties of the two-chain Hubbard ladder 485
Nozaki, H., *see* Ishizuka, Y.

Oda, T., *see* Fujita, T.
Oger, L., Gervois, A., Troadec, J. P., and Rivier, N.: Voronoi tessellation of packings of spheres: topological correlation and statistics 177
O'Hara, K., *see* Slichter, C. P.
Oostens, J., *see* Cooke, D. W.
Owen, A. E., *see* Hu, J.

Park, D.-G., Chen, Z., Botchkarev, A. E., Mohammad, S. N., and Morkoç, H.: Interface properties of Si_3N_4/Si/n-GaAs metal-insulator-semiconductor structure using a Si interlayer 219
Pirri, C. F., *see* Demichelis, F.
Popovic, P., *see* Conde, J. P.

Quader, K. F., and Levin, G. A.: Origin and consequences of the 'gap' in the cuprate normal state 611

Raj, P., *see* Chandrasekhar Rao, T. V.
Rao, L. M., *see* Chandrasekhar Rao, T. V.
Redfield, D., and Bube, R. H.: Carrier-induced mechanism for defect formation in hydrogenated amorphous silicon 309
Rivier, N., *see* Oger, L.
Roberts, J. A., *see* Mei, J.
Robertson, J., *see* Silva, S. R. P.
Rose, M. J., *see* Hu, J.
Rubinelli, F. A., Liu, H., and Wronski, C. R.: A comparison of the hydrogenated amorphous Si Schottky barrier and the hydrogenated amorphous Si p–i–n dark forward-bias current density-voltage characteristics 407
Rusli, *see* Silva, S. R. P.

Sadhukhan, M., Chakraborty, S., Modak, D. K., and Chaudhuri, B. K.: Non-adiabatic small-polaron hopping conduction in $SrTiO_3$-doped $90V_2O_5$-$10Bi_2O_3$ glassy semiconductors 139
Safar, H., Foltyn, S. R., Jia, Q. X., and Maley, M. P.: Bose glass vortex phase transition in twinned $YBa_2Cu_3O_{7-\delta}$ superconductors 647
Sahni, V. C., *see* Chandrasekhar Rao, T. V.
Sarkissian, B. V. B.: Neutron spin echo determination of spin dynamics in the quasiferromagnetic regime of a Au–15at.% Fe alloy 211
Sartor, G., *see* Johari, G. P.
Sathyamoorthy, A., *see* Chandrasekhar Rao, T. V.
Saunders, G. A., *see* Cankurtaran, M.
Scalapino, D. J., and Trugman, S. A.: Local antiferromagnetic correlations and $d_{x^2-y^2}$ pairing 607
Scalapino, D. J., *see* Hammel, P. C.
Scalapino, D. J., *see* Noack, R. M.
Schmiedeshoff, G. M., and Smith, J. L.: Supercritical behaviour of the mixed state of Nb–Ti in high magnetic fields 655
Schmiedeshoff, G. M., *see* Lacerda, A.
Schwan, J., *see* Silva, S. R. P.
Schwarz, R., *see* Conde, J. P.
Serene, J. W., *see* Hess, D. W.
Shakhnovich, K. A., *see* Chubukov, A. V.
Shen, D. S., *see* Conde, J. P.
Shukla, R. C., and Sternin, E.: Debye–Waller factor in Cu: a Green's function approach 1
Shukla, R. C.: Green's function and atomic mean-square displacement: phonon shift and width contributions 13
Silva, M., *see* Conde, J. P.

Silva, S. R. P., Robertson, J. Rusli, Amaratunga, G. A. J., and Schwan, J.: Structure and luminescence properties of an amorphous hydrogenated carbon . . . 369
Singh, P., *see* Bhatia, K. L.
Slansky, R.: Forty-five years of many-body theory: what is the relation of field theory and representations of Lie algebras? 431
Slavcheva, G., and Yanchev, J.: Path-integral approach in the calculation of the electron density of states at the semiconductor–insulator interface. 715
Slichter, C. P., Corey, R. L., Curro, N. J., DeSoto, S. M., O'Hara, K., Imai, T., Kini, A. M., Wang, H. H., Geiser, U., Williams, J. M., Yoshimura, K., Katoh, M., and Kosuge, K.: Nuclear magnetic resonance and electron spins: some history, ancient and in the making 545
Smith, J. L., *see* Schmiedeshoff, G. M.
Snell, A. J., *see* Hu, J.
Sternin, E., *see* Shukla, R. C.
Stojković, B. P.: Magnetotransport in nearly antiferromagnetic Fermi liquids . . 529

Takiyama, K., *see* Fujita, T.
Toneva, A., *see* Vassilev, L.
Troadec, J. P., *see* Oger, L.
Trugman, S. A., *see* Scalapino, D. J.

Uchino, K., *see* Mulvihill, M. L.

Vasanth, K., *see* Conde, J. P.
Vassilev, L., and Toneva, A.: Raman scattering from hydrogenated amorphous silicon obtained by homogeneous chemical vapour deposition 269

Wagner, S., *see* Conde, J. P.
Wagner, T., and Kasap, S. O.: Glass transformation, heat capacity and structure of As_xSe_{1-x} glasses studied by modulated temperature differential scanning calorimetry experiments 667
Wang, H. H., *see* Slichter, C. P.
Wang, Q., *see* Cankurtaran, M.
Wang, Z. L.: Statistical multiple diffuse scattering in a distorted crystal system: an exact theory 733
Wang, Z. L., and Kang, Z. C.: Growth of spiral carbon tubes by a mixed-valent oxide-catalytic carbonization process 51
White, S. R., *see* Noack, R. M.
Williams, J. M., *see* Slichter, C. P.
Wolffer, N., *see* Marc, N.
Wronski, C. R., *see* Rubinelli, F. A.

Yamaguchi, T., *see* Ishizuka, Y.
Yanchev, J., *see* Slavcheva, G.
Yatskar, A., *see* Lacerda, A.
Yildiz, A. K., and Beeby, J. L.: A new technique to calculate the electronic structure of two-dimensional quasicrystals 387
Yoshimura, K., *see* Slichter, C. P.
Yusuf, Sk. M., *see* Chandrasekhar Rao, T. V.

Zha, Y.: Model of *c*-axis transport of high-T_c cuprates 497